



State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF RADIATION CONTROL
Rusty Lundberg
Director



January 20, 2011

CERTIFIED MAIL
RETURN RECEIPT REQUIRED

Cavanagh Services Group Inc.
Jeb Berg, Director of Operations
261 East 300 South, Suite 200
Salt Lake City, Utah 84111

RE: Generator Access Permit Number 0501003157; NOTICE OF VIOLATION AND NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY

Dear Mr. Berg:

As a result of observations made during an inspection, it has come to the attention of the Utah Division of Radiation Control that Cavanagh Services Group Inc., shipped radioactive waste to the EnergySolutions, LLC disposal facility located at Clive, Utah that did not conform to the Utah Radiation Control Rules.

Specifically, the Division of Radiation Control is concerned that the apparent lack of management control regarding the implementation of your waste classification procedures resulted in significant violations of Utah Radiation Control Rules. Consequently, your required response to this letter should describe those actions planned or taken to improve the effectiveness of the management control of your waste classification procedures, with particular emphasis on measures currently being taken to prevent future waste classification violations.

Corrective actions taken to avoid future noncompliance are expected to be effective and lasting. Utah Administrative Code Subsection R313-14-15(2)(b)(ii) states, "ineffective licensee programs for problem identification or correction are unacceptable. In cases involving repeated poor performance in an area of concern or serious breakdown in management control, the Executive Secretary may apply the full enforcement authority."

A Notice of Violation and Notice of Proposed Imposition of Civil Penalties is enclosed. The particular violations are described in the enclosed Notice. Your attention to this matter is appreciated.

UTAH RADIATION CONTROL BOARD

Rusty Lundberg, Executive Secretary

RL:jf

Enclosure

cc: Jeff Ginsburg, EnergySolutions

**UTAH RADIATION CONTROL BOARD
NOTICE OF VIOLATION
AND
NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**

Cavanagh Services Group Inc.
261 East 300 South, Suite 200
Salt Lake City, Utah 84111

Generator Site Access Permit No. 0501 003 157

In a letter dated December 13, 2010, EnergySolutions notified the Utah Division of Radiation Control (UDRC) of a non-compliance issue at the EnergySolutions Low-Level Radioactive Waste Disposal Facility in Clive, Utah. The purpose of the letter was to inform the Executive Secretary of the Utah Radiation Control Board of multiple shipments with containers containing waste exceeding Class A waste limits that were accepted and disposed at the Clive facility. As a result of the investigation, violations of the Utah Radiation Control Rules were identified. The authority for this proposed action is Utah Code Annotated (1953, as amended) Section 19-3-109. The proposed penalties have been arrived at by using Rule R313-14 of the Utah Administrative Code (UAC). The particular violations and the associated proposed civil penalty are set forth below:

1. Utah Radiation Control Rule R313-26-6 states: "Generator Site Access Permittees shall be subject to the provisions of Rule R313-14 for violations of federal regulations, state rules or requirements in the current land disposal facility operating license regarding radioactive waste packaging, transportation, labeling, notification, classification, marking, manifesting or description."

License Condition 9.B of the receiving land disposal facility, EnergySolutions (Licensee), Radioactive Material License Number UT2300249, states: "In accordance with Utah Code Annotated 19-3-105, the Licensee may not receive Class B or Class C low-level radioactive waste without first receiving approval from the Executive Secretary of the Utah Radiation Control Board and also receiving approval from the Governor and the Legislature."

Contrary to this requirement, a radioactive waste shipment from Cavanagh Services Group Inc., (Permittee), was identified and confirmed by the Division of Radiation Control as exceeding Class A limits. The permittee misclassified and certified the waste that EnergySolutions received, accepted and disposed of as Class A. Shipment number 9328-06-0002 consisted of 19 packages and was described on the Nuclear Regulatory Commission (NRC) Uniform Low-Level Waste Manifest Form 541 as Class A unstable material. It was determined that the classification calculations of the material were based on the container gross weight, rather than the net weight of the waste regarding one drum identification number C08197511. Therefore, it was misclassified as Class A waste.

This violation is of significant concern and has been characterized as Severity Level III. The base penalty for this Severity Level is \$2,500.00.

Therefore, a civil penalty of \$2,500.00 is proposed.

In addition, in accordance with Utah Radiation Control Rule R313-26-6 the above violation was evaluated utilizing the Generator Site Access Permit Enforcement Policy. Accordingly, Cavanagh Services Group Inc., Generator Site Access Permit will be assessed 125 points for mischaracterization of the waste shipment.

2. Utah Radiation Control Rule R313-15-1006(3), which incorporates by reference federal regulation 10 CFR 20, Appendix G, Section II. *Certification*, requires the authorized representative of the waste generator to certify that the transported material is properly classified and described.

**UTAH RADIATION CONTROL BOARD
NOTICE OF VIOLATION
AND
NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**

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Cavanagh Services Group Inc.
261 East 300 South, Suite 200
Salt Lake City, Utah 84111

Generator Site Access Permit No. 050 100 3157

Contrary to the above, the Permittee wrongly certified that the waste was classified as Class A.

This violation is characterized as a Severity Level IV. The base penalty for this Severity Level is \$750.00.

Therefore, a civil penalty of \$750.00 is proposed.

In accordance with Utah Radiation Control Rule R313-26-6 the above violation was evaluated utilizing the Generator Site Access Permit Enforcement Policy. Accordingly, Cavanagh Services Group Inc., Generator Site Access Permit will be assessed 100 points for failure to execute the required shipper's certification.

Regarding the civil penalties, the licensee may within 30 days of receipt of this Notice, pay the civil penalty in the amount of \$3,250.00, or may protest the imposition of the civil penalties in whole or in part by written answer. Should the permittee fail to answer in the time specified, the Utah Radiation Control Board will issue an order imposing a civil penalty in the amount proposed.

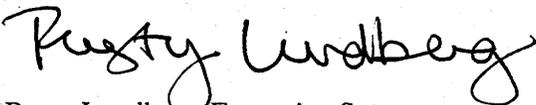
Regarding the assessed points, the DRC requires all shipments be suspended until the corrective actions are accepted by the Executive Secretary. Any reply to the Notice of Violation should include, for each violation: (1) the corrective steps which have been taken and the results achieved; (2) the corrective steps which have been taken to prevent recurrence; and (3) the date full compliance will be achieved. A response protesting the Imposition of Civil Penalties shall include: (1) an admission or denial of the item of non-compliance; (2) a demonstration of extenuating circumstances; (3) a showing of error in the Notice of Violation; or (4) other reasons why the penalty should not be imposed.

Your response or written answer to this Notice of Violation/Notice of Proposed Imposition of Civil Penalty shall be addressed to Rusty Lundberg, Executive Secretary, Utah Radiation Control Board, 195 North 1950 West, P.O. Box 144850, Salt Lake City, Utah 84114-4850. The licensee's attention is directed to the Administrative Procedures set forth in Utah Code Annotated (UCA) 63G-4. If a hearing is requested, the Executive Secretary of the Utah Radiation Control Board will designate the time and place of the hearing.

Upon failure to pay any civil penalty due which has been subsequently determined in accordance with the applicable provisions of UCA 19-3-109 and R313-14, the matter may be referred to the Attorney General, and the civil penalty may be collected by civil action pursuant to UCA 19-3-109(5).

Dated at Salt Lake City, Utah
This 20th day of January, 2011

UTAH RADIATION CONTROL BOARD



Rusty Lundberg, Executive Secretary

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (800)974-2211

ORGANIZATION EMAX

2. IS THIS AN EXCLUSIVE USE SHIPMENT? YES NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 19

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? YES NO EPA MANIFEST NUMBER 6501

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)

12. DOT LABEL "RADIOACTIVE"

13. TRANSPORT INDEX NA

14. PHYSICAL AND CHEMICAL FORM Solid Elemental

15. INDIVIDUAL RADIOIDS Am-241 Pu-239 U-235

16. TOTAL PACKAGE ACTIVITY (mCi) 1,857,654.01

17. TITLE TRAS. 100010000

18. TOTAL WEIGHT (lbs) 397,0746

19. DATE 8/11/08

20. TERMS AND CONDITIONS

Record Waste Description Inadequate

Container Integrity Inadequate

No Violations Detected on this Shipment

5. SHIPPER - NAME AND FACILITY
EMAX, LLC (by General Services)
Los Alamos, NM 87545

6. GENERATOR - Name and Address
E.P. Environmental Services, Inc.
2400 Manor Street
Baltimore, MD 21286

7. FORM 540 AND 541A
FORM 541 AND 541A
FORM 542 AND 542A
ADDITIONAL INFORMATION

8. MANIFEST NUMBER
(Use the number on all continuation pages)
ESU 9328-06 AUG

9. CONTACT
Transportation Compliance
Telephone (Include Area Code)
DATE 8/21/08

10. CERTIFICATION
This is to certify that the herein-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

11. SHIPMENT NUMBER 6501

12. GENERATOR TYPE GENERATOR COLLECTOR PROCESSOR

13. TELEPHONE NUMBER (Include Area Code) 937-5854

14. EPA ID NUMBER CA190206

15. SHIPPING DATE 08/22/08

16. SIGNATURE - Authorized generator representative

17. SIGNATURE - Authorized consignee representative

18. RECEIVED DATE 8-18-08

19. AUTHORITY TO SIGNATURE

20. TITLE TRAS. 100010000

21. TOTAL WEIGHT (lbs) 397,0746

22. DATE 8/11/08

23. TOTAL PACKAGE ACTIVITY (mCi) 1,857,654.01

24. TITLE TRAS. 100010000

25. TOTAL WEIGHT (lbs) 397,0746

26. DATE 8/11/08

27. TOTAL PACKAGE ACTIVITY (mCi) 1,857,654.01

28. TITLE TRAS. 100010000

29. TOTAL WEIGHT (lbs) 397,0746

30. DATE 8/11/08

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U235, PU238, U238, 8, 89250E-08 TBQ	UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U235, PU238, U238, 8, 89250E-08 TBQ	UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U235, PU238, U238, 8, 89250E-08 TBQ	UN3307, Hazardous Waste, Solid, N.O.S., 9, P.G.III (Contains Barium & Silver)	NA3077, Hazardous Waste, Solid, N.O.S., 9, P.G.III (Contains Lead)	UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U235, PU238, U238, 1, 16791E-04 TBQ
NA	NA	NA	NA	NA	NA
Am-241	Am-241	Am-241	Co-137	Co-60	Am-241
Pu-239	Pu-239	Pu-239	U-235	U-235	Pu-239
U-235	U-235	U-235	U-238	U-238	U-238
1,857,654.01	8,992,50E+01	8,992,50E+01	4,0700E-04	2,2085E-02	1,6791E+02
LSA-II	LSA-II	LSA-II	NA	NA	LSA-II
397,0746	410,0771	410,0771	30,0066	135,0254	411,0773
08196579	08196603	08196603	08196903	08197226	08197302

20. TERMS AND CONDITIONS

A. HAZARDOUS MATERIALS: Generator represents & warrants that when labeled "H" (or) "I" not a hazardous waste as defined in 40 CFR 261.11. Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate and-duplicate (radioactive) notice and/or certification as required by 40 CFR 261.11.

B. TITLE: Upon acceptance at the disposal site by EnergySolutions, LLC, and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall then pass to EnergySolutions, LLC.

C. WASTE MATERIAL: Generator represents and warrants that all data set forth in the UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST is true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and EnergySolutions, LLC's facility license.

D. INDemnIFICATION: Generator agrees to indemnify EnergySolutions, LLC, its officers, employees and agents against all losses and liability (including all costs of defense) resulting from the failure of the Waste Material to conform to all applicable laws, rules, regulations and EnergySolutions, LLC's facility license. This agreement shall be null and void if the Department of Transportation or any governmental agency having jurisdiction over such matters.

Energy Solutions

RSR Paperwork Completion By Bates

PM00804

ARRIVED: 8/20/2008
RECORD: 9328-06-0002
HAZ_MANIFEST: 65908
VEHICLE_ID: 382

CUFEET: 117.4682
Waste Type: PCB/MWT DOE

Conveyance Release Survey:



8/25/2008 12:46:56 PM For Internal Use Only

Weight concentrations
in Nucleos
00819754

FORM 540
UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER

EnergySolutions, LLC
 5. SHIPPER - NAME AND FACILITY
 LANA, LLC (by Cleanup Services)
 PO Box 1883
 Los Alamos, NM 87545

SHIPPER ID NUMBER
 8778
 COLLECTOR
 PROCESSOR
 GENERATOR TYPE
 (Specify) G
 (Include Area Code)
 607-284

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
 (800) 477-4311

6. CARRIER - Name and Address
 M.P. Environmental Services, Inc.
 3400 River Street
 Bakersfield, CA 93348

7. FORM 540 AND 541A
 FORM 541 AND 541A
 FORM 542 AND 542A
 ADDITIONAL INFORMATION
 3. DATES/ISSUE - Name and Facility
 EnergySolutions, LLC
 Clive Disposal Site
 Interstate 80, Exit 49
 Clive, UT 84029

2. IS THIS AN EXCLUSIVE USE SHIPMENT?
 YES
 NO

8. CONTACT
 Doug Killam

8. MANIFEST NUMBER
 (Use this number on all continuation
 pages)
 4324-06-0002
 ESI 5328-06 Aug

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?
 YES
 NO

9. EPA ID NUMBER
 QAT00024247
 SHIPPING DATE
 08/21/08

10. CERTIFICATION
 This is to certify that the material is properly classified, described, packaged, labeled, and loaded and that it complies with the requirements of the Department of Transportation, 49 CFR Parts 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)

12. DOT LABEL "RADIOACTIVE"

13. TRANSPORT INDEX

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, PU239, AM241, U235, PU238, U238, 1.89230E-05 TBQ

14. PHYSICAL AND CHEMICAL FORM

15. INDIVIDUAL RADIOCLIDES

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

16. TOTAL PACKAGE ACTIVITY (mCi)

17. LEASCO CLASS

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U235, PU238, U238, 1.89230E-05 TBQ

18. TOTAL WEIGHT OR VOLUME (Use appropriate units)

19. NUMBER OF PACKAGES

NA3077, Hazardous Waste, Solid, N.O.S., 9, P011 (Contains Lead)

20. TERMS AND CONDITIONS

HAZARDOUS MATERIALS: Generator represents & warrants that when labeled in (17) it is not a hazardous waste as defined in 40 CFR 261.1. When the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate pre-disposal restriction codes and/or certification as required by 40 CFR 268.1.

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

21. RECORD WASTE DESCRIPTION INADEQUATE

22. CONTAINER INTEGRITY INADEQUATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

23. CONTAMINATION OR LEAKAGE DETECTED

24. UNEXPECTED EXPOSURE RATES DETECTED

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

25. LABELS, MARKINGS, ETC. INADEQUATE

26. OTHER

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

27. NO VIOLATIONS DETECTED ON THIS SHIPMENT

28. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

29. DATE

30. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

31. DATE

32. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

33. DATE

34. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

35. DATE

36. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

37. DATE

38. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

39. DATE

40. DATE

UN3321, Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Exempted, 7, CO60, PU239, AM241, CS137, U238, PU238, U238, 1.89230E-05 TBQ

41. DATE

42. DATE

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)

Energy Solutions, LLC

MANIFEST NUMBER
(Use the number on all continuation pages)
ESU 022626 Aug

Page 2 of 3

1. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	2. DOT LABEL "RADIOACTIVE"	3. TRANSPORT INDEX	4. PHYSICAL AND CHEMICAL FORM	5. INDIVIDUAL RADIONUCLIDES	6. TOTAL PACKAGE ACTIVITY mCi	7. IAEA/SCO CLASS	8. TOTAL WEIGHT (OR VOLUME (Use appropriate units))	9. IDENTIFICATION NUMBER OF PACKAGE
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, C090, PU239, AM241, CS137, U238, PU239, U238, 1.16791E+04 T89	NA	NA	Solid Oxide	Am-241 Co-60 Pu-239 U-238 Co-137 Pu-238	1.1679E+02 3.1666E+00	LSA-II	37.6, 0795 LBS; 7.3907 FT3	C08197799
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, C090, PU239, AM241, CS137, U238, PU239, U238, 1.16791E+04 T89	NA	NA	Solid Elemental	Am-241 Co-60 Pu-239 U-238 Co-137 Pu-238	1.1679E+02 3.1666E+00	LSA-II	386, 0669 LBS; 7.3507 FT3	C08197799
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU238, U238, 5.6278E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 Pu-239 U-238	2.1292E+00 5.7546E-02	LSA-II	37, 097 LBS; 4.844 FT3 L, FT 3	C08197813
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, C090, PU239, AM241, CS137, U238, PU239, U238, 1.16791E+04 T89	NA	NA	Solid Elemental	Am-241 Co-60 Pu-239 U-238 Co-137 Pu-238	1.1679E+02 3.1666E+00	LSA-II	386, 0726 LBS; 7.3507 FT3	C08198153
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7 PU238, SR99, 1.16348E-05 T89	NA	NA	3 Elemental	Am-241 Pu-238 U-238	1.1288E+01 3.0527E-01	LSA-II	470 LBS; 7.3697 FT3	C08198154
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU239, U238, 4.7890E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 U-238	4.7890E+00 1.2941E-01	LSA-II	298, 0391 LBS; 7.3507 FT3	C08198592
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, C090, PU239, AM241, CS137, U238, PU239, U238, 1.16791E+04 T89	NA	NA	Solid Elemental	Am-241 Co-60 Pu-239 U-238 Co-137 Pu-238	1.1679E+02 3.1666E+00	LSA-II	386, 0669 LBS; 7.3507 FT3	C08198622
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU239, U238, 5.6278E-06 T89	NA	NA	Solid Oxide	Am-241 Pu-238 U-238	5.6280E+00 1.5400E-01	LSA-II	315, 316 LBS; 4.0095 FT3	C08198693
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U238, PU238, U238, 8.0049E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 U-238	5.6243E+00 1.5148E-01	LSA-II	309, 592 LBS; 4.0095 FT3	C08198694
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU238, U238, 5.6283E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 U-238	5.6294E+00 1.5206E-01	LSA-II	312, 669 LBS; 4.0095 FT3	C08198695
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU238, U238, 5.6283E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 U-238	5.7011E+00 1.5400E-01	LSA-II	276, 056 LBS; 4.0095 FT3	C08198696
UN3321, Waste Radioactive Material, Low Specific Activity (LSA II) Fissile-Exempted, 7, PU239, AM241, U235, PU238, U238, 7.3151E-06 T89	NA	NA	Solid Elemental	Am-241 Pu-238 U-238	7.3152E+00 1.9771E-01	LSA-II	66, 3705 LBS; 7.3697 FT3	C08198697

